

## WHAT IS CLAIMED IS:

1. An input/output management system for managing input or output from or to a disk device connected to a computer,  
5 comprising:

a connection information definition block in which the relationship of logical connection between said computer and a logical volume included in said disk device or a logical area in a logical volume is defined; and

10 an input/output execution control block that controls, based on the definition, whether said computer can access a logical volume included in said disk device or a logical area in a logical volume.

15 2. An input/output management system for managing input or output from or to a disk device connected to a plurality of computers, comprising:

a connection information definition block in which the relationship of logical connection between each of said 20 computers and a logical volume included in said disk device or a logical area in a logical volume is defined using computer identification information; and

an input/output execution control block that controls, based on the definition, whether each of said computers can 25 access a logical volume included in said disk device or a logical

area in a logical volume.

3. An input/output management system according to Claim 1, wherein said connection information definition block  
5 comprises:

a computer identification information definition division in which physical identification information that uniquely indicates said computer connected to said disk device is defined; and

10 a logical volume connection information specification division in which a connected state value concerning the connection of said computer is specified in relation to each logical volume included in said disk device or each logical area in each logical volume.

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4. An input/output management system for managing input or output from or to a disk device connected to a computer according to Claim 1, wherein said connection information definition block comprises:

20 a computer identification information definition division in which the relationship of logical connection between said computer and a logical area in a logical volume included in said disk device is defined using computer identification information; and

25 a logical volume connection information specification

division in which a connected state value concerning the connection of said computer is specified in relation to each logical area in each logical volume included in said disk device.

5        5. An input/output management system according to Claim 4, wherein

      said computer includes a plurality of logical computers, computer identification information concerning each of said logical computers is specified in said computer 10 identification information definition division, and  
      said input/output execution control block controls whether each of said logical computers that share the same physical input/output path can access a logical area in a logical volume included in said disk device.

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      6. An input/output management system according to Claim 1, wherein said connection information definition block comprises:

      a computer identification information definition 20 division in which the relationship of logical connection between said computer and a logical volume included in said disk device is defined using port numbers assigned to the ports of said disk device connected to said computer; and  
      a logical volume connection information specification 25 division in which a connected state value concerning the

connection of said computer is specified in relation to each logical area in each logical volume included in said disk device.

7. An input/output management system for managing input  
5 or output from or to a disk device connected to a computer  
according to Claim 1,

wherein the definition is used to control whether each  
of application programs running in said computer can access  
a logical volume included in said disk device or a logical area  
10 in a logical volume.

8. An input/output management system according to Claim  
7, further comprising a schedule definition division in which  
a plurality of pieces of computer identification information  
15 that defines whether said computer or each of said application  
programs can access a logical volume included in said disk device  
or a logical area in a logical volume is specified in relation  
to respective time zones, and in which a schedule for  
automatically changing the plurality of pieces of computer  
20 identification information is predefined.

9. An input/output management method for managing input  
or output from or to a disk device connected to a computer,  
comprising the steps of:

25 defining the relationship of logical connection between

said computer and a logical volume included in said disk device or a logical area in a logical volume; and

controlling, based on the definition, whether said computer can access a logical volume included in said disk device  
5 or a logical area in a logical volume.

10. An input/output management method according to Claim 9,

wherein the definition of the relationship of connection  
10 contains physical identification information that uniquely indicates said computer connected to said disk device, and also contains logical volume connection information that contains a connected state value concerning the connection of said computer to each logical volume included in said disk device  
15 or each logical area included in each logical volume.

11. An input/output management method for managing input or output from or to a disk device connected to a computer, comprising the steps of:

20 defining, based on computer identification information and logical volume connection information, the relationship of logical connection between said computer and a logical volume included in said disk device or a logical area in a logical volume; and

25 controlling, based on the definition, whether said

computer can access a logical area in a logical volume included in said disk device.

12. An input/output management method according to Claim  
5 9, wherein whether each of application programs running in said computer can access a logical volume included in said disk device or a logical area in a logical volume is controlled.

13. An input/output management method according to Claim  
10 11, wherein a plurality of pieces of definition information that defines whether said computer or each of application programs running in said computer can access a logical volume included in said disk device or a logical area in a logical volume is automatically switched with the start of each of time zones according to a predefined schedule.

14. An input/output management method according to Claim  
10,  
wherein definition information that defines whether said computer or each of application programs running in said computer can access a logical volume included in said disk device or a logical area in a logical volume is automatically modified with a system failure occurring in said connected computer as a trigger.

15. A disk control program for implementing a method of processing information based on which input or output from or to a disk device connected to a computer is managed, wherein said method comprises the steps of:

5 defining the relationship of logical connection between said computer and a logical volume included in said disk device or a logical area in a logical volume on the basis of both physical identification information that uniquely indicates said computer connected to said disk device, and logical volume  
10 connection information that contains a connected state value concerning the connection of said computer to each logical volume included in said disk device or each logical area in each logical volume; and

controlling, based on the definition, whether said  
15 computer can access a logical volume included in said disk device or a logical area in a logical volume.